

## What are the symptoms of **TULAREMIA**

**Sudden fever**

**Chills**

**Headaches**

**Muscle aches**

**Joint pain**

**Dry cough**

**Progressive weakness**

**Pneumonia**

Persons with pneumonia can develop chest pain and bloody mucus and can have trouble breathing or can sometimes stop breathing altogether.

Other symptoms of tularemia can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat.

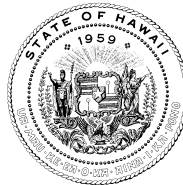
Symptoms usually appear 3 to 5 days after exposure to the bacteria, but can take as long as 14 days.

*For more information, call*

**Aloha United Way**



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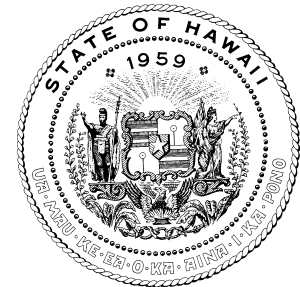
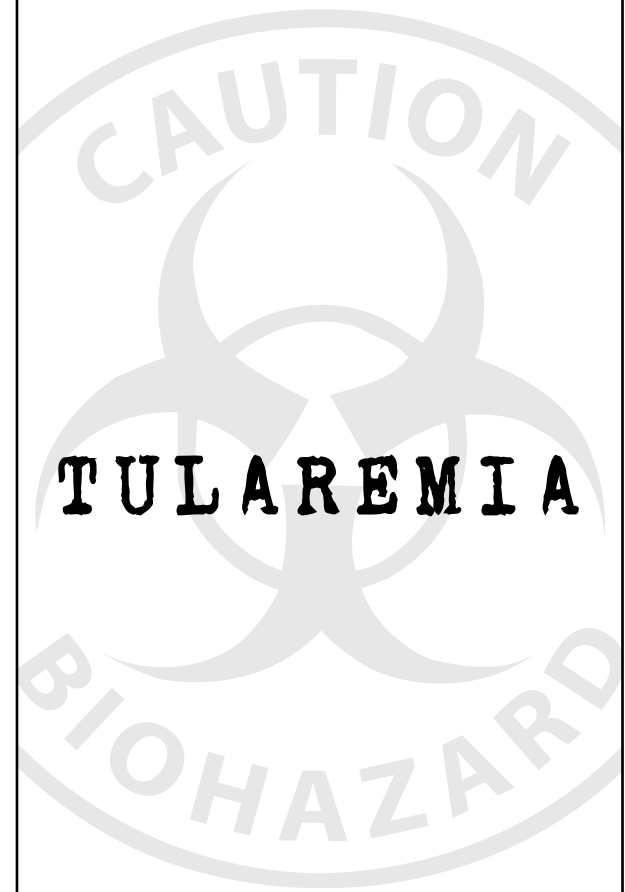


Linda Lingle, Governor  
Chiyoame L. Fukino, M.D., Director of Health



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## ***What is tularemia?***

Tularemia is an infectious disease caused by the bacterium, *Francisella tularensis*. It is commonly found in animals, especially rodents and rabbits.

## ***How is tularemia spread?***

Tularemia can be spread by:

- The bites of ticks, deerflies, mosquitoes and other insects that have fed on an infected animal.
- Handling infected animal carcasses.
- Eating or drinking contaminated food or water.
- Inhaling the aerosolized bacteria.



Tularemia is not contagious; it does not spread from person to person.

## ***What are the symptoms of tularemia?***

Symptoms of tularemia could include:

- sudden fever
- dry cough
- chills
- progressive weakness
- headaches
- pneumonia
- muscle aches
- joint pain

Persons with pneumonia can develop chest pain and bloody mucus and can have trouble breathing or can sometimes stop breathing altogether.

Other symptoms of tularemia can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat.

Symptoms usually appear 3 to 5 days after exposure to the bacteria, but can take as long as 14 days.

## ***How can tularemia be treated?***

Doctor prescribed antibiotics can be effective in treating tularemia if treatment is started early. Any delay in medication can lessen chances for survival.



## ***Is there a vaccine available for tularemia?***

In the past, tularemia vaccine has been used on a limited basis to protect laboratory workers. This vaccine is no longer available because of safety concerns by the Food and Drug Administration.

## ***How do you know if you were exposed?***

Exposure to tularemia can be confirmed by laboratory testing of blood or mucus. Most naturally occurring cases of tularemia are the result of humans coming in contact with infected animals or being bitten by infected ticks or flies.

## ***What should you do if you were exposed to tularemia?***

Seek prompt medical attention. Tell your care provider of the possible exposure. The disease can be fatal if it is not treated with the appropriate antibiotics.



## ***Where is tularemia found?***

Tularemia is a naturally occurring disease in animals. There are approximately 200 human cases of tularemia reported each year in the United States. Nearly all these cases occur in rural areas and are associated with the bites of infected ticks and biting flies or with the



handling of infected rodents, rabbits, or hares. Tularemia has never been reported in Hawai'i in either humans or animals.

## ***Why is there concern about tularemia being used as a bioweapon?***

The bacterium that causes tularemia is very hardy and highly infectious. It resists freezing and can remain alive for weeks in water. The bacteria occurs widely in nature and could be isolated and grown in large quantities. However, manufacturing an effective aerosol weapon would be difficult. In the past, tularemia has been cultivated for use as a weapon by the U.S., the former Soviet Union and other nations.

## ***Can pets and other animals get tularemia?***

Yes. Tularemia is an infectious disease found in animals. These animals may transmit the disease through infected insects. If you think your pet or animal was exposed, call your veterinarian.



Hand lesion and deer mouse photos courtesy Public Health Image Library, Center for Disease Control and Prevention.